

37. (New) The system, as recited in claim 33, wherein a common mode voltage is reduced by a scaling factor determined by the capacitive enhancement mechanism.

REMARKS

In the Office Action, claims 1 and 6 were rejected. Applicant would like to begin by thanking the Examiner for noting the allowable subject matter in claims 2-5 and for allowing claims 7-27. By the present Response, claim 1 has been canceled without prejudice. Additionally, claim 2 has been amended to read in independent form and claim 6 has been amended to depend from newly independent claim 2. New claims 28-37 have been added. Upon entry of the amendments, claims 2-37 will remain pending in the present patent application. Allowance of all pending claims is respectfully requested.

The amendments result in addition of two new independent claims and a total of 9 claims beyond those for which fees have been paid. Accordingly, the amendments will result in a fee in the amount of \$330.00. The Commissioner is authorized to charge the requisite fee of \$330.00 to Deposit Account No. 01-0857; Order No. 01RE156/YOD (REEL:0025).

In the Office Action, the Examiner rejected claim 1 under 35 U.S.C. §102(b) as being anticipated by both Byrd (US 6,091,173) and Dschen (US 3,176,286). Additionally, the Examiner rejected claim 6 under 35 U.S.C. §103(a) as being unpatentable over Byrd or Dschen. Although Applicant may not necessarily agree with the Examiner's assertions, in the interests of efficient prosecution claim 1 has nonetheless been cancel without prejudice. Moreover, claim 2 has been amended to read in independent form (i.e. incorporating all of the recitations of claim 1). Claim 6 has been amended to depend from newly independent claim 2. Accordingly, claims 3-6 all now depend from newly independent claim 2. All of claims 2-6 are therefore in condition for allowance.

New claims 28-37 have been added by this Response. New independent claims 28 and 33 include recitations similar to those of original claim 14, including the enhanced surface recitation noted by the Examiner. Dependent claims 29 and 34 are similar to original claim 15. Dependent claims 30 and 35 are similar to original claim 3. Dependent claims 31 and 36 are similar to original claim 4. Dependent claims 32 and 37 are similar to original claim 6. Accordingly, no new matter has been added by the amendment. All of the new claims are believed to be clearly patentable, *inter alia*, because the prior art does not teach or suggest enhanced surfaces for creating capacitance and thereby reducing voltage as claimed.

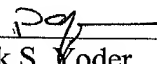
Applicant notes in passing that there are several manners to form the claimed enhanced surfaces, and indeed, more than one arrangement is set forth in the present application. Various similar and alternative arrangements that may fall within the scope of the claims may be foreseen by those skilled in the art given the teachings of the application.

In view of the remarks and amendments set forth above, Applicant respectfully requests allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE".

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Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Claim 1 has been canceled without prejudice.

The claims have been amended as follows:

2. (Amended) ~~The A bearing system, as recited in claim 1 comprising;~~
a frame;
a shaft;
a rotor assembly mounted on the shaft;
at least one bearing supporting the shaft in the frame; and
a capacitance enhancement mechanism by which rotor to frame capacitance is
increased, wherein the capacitance enhancement mechanism comprises a labyrinth, the
labyrinth comprising a ground member, a shaft-voltage reducer, and one or more gaps
disposed between the grounded member and the shaft-voltage reducer.

6. (Amended) The bearing system, as recited in claim 1 2, wherein a
common mode voltage on the shaft is reduced by a scaling factor determined by the
capacitive enhancement mechanism.

The following new claims have been added:

28. (New) A system for reducing voltage between elements of a
rotating machine, the system comprising:
a capacitive enhancement mechanism configured to be coupled between a
machine housing and a machine rotor, the capacitive enhancement mechanism having a
capacitor formed by a pair of enhanced surfaces that undergo relative movement during
operation.

29. (New) The system, as recited in claim 28, wherein the enhancement surfaces each comprise a grounded member and a shaft-voltage reducer, and where one or more gaps are disposed between the grounded member and the shaft-voltage member.

30. (New) The system, as recited in claim 29, comprising a dielectric material disposed to circulate within the one or more gaps.

31. (New) The system, as recited in claim 30, wherein the dielectric material is ionized to create a continuous path for current flow.

32. (New) The system, as recited in claim 28, wherein a common mode voltage is reduced by a scaling factor determined by the capacitive enhancement mechanism.

33. (New) A system for reducing voltage between elements of a rotating machine, the system comprising:

a housing;

a stator assembly mounted within the housing;

a shaft;

a rotor assembly coupled to the shaft and rotatably mounted within the housing via at least one bearing; and

a capacitive enhancement mechanism coupled between the housing and the rotor, the capacitive enhancement mechanism having a capacitor formed by a pair of enhanced surfaces that undergo relative movement.

34. (New) The system of claim 33, wherein the enhancement surfaces each comprise a grounded member and a shaft-voltage reducer, and where one or more gaps are disposed between the grounded member and the shaft-voltage member.

35. (New) The system of claim 34, comprising a dielectric material disposed to circulate within the one or more gaps.

36. (New) The system, as recited in claim 35, wherein the dielectric material is ionized to create a continuous path for current flow.

37. (New) The system, as recited in claim 33, wherein a common mode voltage is reduced by a scaling factor determined by the capacitive enhancement mechanism.